



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,473	02/27/2002	Fumihiko Okai	381AS/50959	4774

23911 7590 09/17/2003

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

ALSOMIRI, ISAM A

ART UNIT	PAPER NUMBER
----------	--------------

3662

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Applicant(s) OKAI ET AL.
	Applicant(s) OKAI ET AL.
Examiner Isam A Alsomiri	Art Unit 3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) 4, 11, 12 and 14-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 5 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-9 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, 6-9 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirai et al. Referring to claim 1, Shirai discloses in figures 1-4 detecting targets in the field of view and measuring the distance and the speed of the target, which reads on the claimed obstruction detection means (see Abstract), performing vehicle control, including a weather sensor that inherently includes a comparison of weather conditions to judge if the performance of the radar system will be sufficient (see col. 31 lines 15-29) which reads on the claimed means for judging a detection performance level, it is inherent that the system does two or more controls (see figure 1_20a, 18a and 16), enabling or interrupting operation in accordance with the performance (see col. 31 lines 15-29).

Referring to claim 2, Shirai teaches notifying a vehicle driver of interruption of operation of the vehicle control (see col. 31 lines 25-27).

Referring to claims 6 and 7, Shirai discloses in figures 1-4 detecting targets in the field of view and measuring the distance and the speed of the target, which reads on the claimed

Art Unit: 3662

acquiring a speed detection means (see Abstract), conveying information concerning a relation of the vehicle and the obstruction to a driver based on speed of the vehicle (see col. 11 lines 16-28), it is inherent that the traveling control is performed on the basis of the speed and distance of the target (see Abstract), furthermore, it is inherent that the notification will be changed when the system performance is different, Shirai teaches advising the driver that the system control unit has changed because of the performance.

Referring to claims 8 and 9, Shirai teaches canceling the intervehicle distance control and advising the driver that it has been canceled, which reads on the claimed canceling the traveling control and notifying the driver (see col. 31 lines 15-27).

Referring to claim 18, it is inherent that Shirai's system includes classifying the detection performance into a plurality of level, either working properly or not (see col. 31 lines 15-29).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirai et al. in view of Morikawa et al.

Referring to claim 17, Shirai does not teach setting an initial value and calculating a current value of a distance at which the obstruction approaching to the vehicle begins to be detected or missed, and comparing the initial and the calculated values to thereby judge the detection performance. Morikawa teaches judging the detection performance by comparing an initial value or reference value with a calculated value, wherein the calculated value is determined by calculating the distance limit of the preceding vehicle determined by the distance determining means immediately when the preceding vehicle has entered the obstacle detectable zone, furthermore, it is inherent that the initial value is calculated in a similar method when the system is normal (see col. 1 line 51 to col. 2 lines 6). It would have been obvious to modify Shirai's system to compare an initial value at normal performance with a calculated value of the performance level to determine the current performance of the system for better accuracy and a more reliable system.

Referring to claim 19, Shirai does not teach using a millimeter-wave radar, however, using millimeter-wave radar is known to those skilled in the art. Therefore, it would have been obvious to modify Shirai's system to use a millimeter-wave radar to cut cost and to suppress noises and because it is known to those skilled in the art.

Allowable Subject Matter

Claims 3 and 5 are allowed.

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed July 10 2003 have been fully considered but they are not persuasive. Applicant argues that (1) Shirai et al. teaches only a single vehicle control mode for controlling throttle or brakes to maintain an inter-vehicle distance to conform to a target value, and (2) Shirai et al does not teach any other vehicle control modes or alarm modes. Also applicant argues that (3) Shirai does not teach that a plurality of vehicle control modes or alarm modes are provided. As mentioned in the office action and in part admitted by the applicant, Shirai does have a vehicle control mode, which includes controlling the throttle or brakes based on the detection performance, the throttle and brakes are two controls, which reads on the claimed "two or more controls" claim 1. Applicant however did not claim more than one control modes or alarms modes (2), or a plurality of vehicle control modes or alarm modes (3).

Applicant argues that Shirai does not teach means for individually enabling or interrupting operation of the vehicle control or alarm control in accordance with the detection performance. Shirai teaches prohibiting the control unit until the detection is improved, the control includes the claimed vehicle controls (see col. 31 lines 15-27).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isam A Alsomiri whose telephone number is 703-305-5702. The examiner can normally be reached on Monday-Thursday and every other Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H Tarcza can be reached on 703-306-4171. The fax phone numbers for the

Art Unit: 3662

organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Isam Alsomiri



September 15, 2003



THOMAS H. TARCZA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600